CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 84-56

NPDES NO. CA0038067

WASTE DISCHARGE REQUIREMENTS FOR:

SAUSALITO-MARIN CITY SANITARY DISTRICT,
CITY OF SAUSALITO, TAMALPAIS VALLEY COMMUNITY
SERVICES DISTRICT, U.S. ARMY FORT BAKER, and
GOLDEN GATE NATIONAL RECREATIONAL AREA

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Sausalito-Marin City Sanitary District (hereinafter discharger) submitted a report of waste discharge dated April 24, 1984 for reissuance of NPDES No CA0038067.

2. The discharger operates a municipal wastewater treatment plant located along Fort Baker Road south of Sausalito, on San Francisco Bay near the south end of Richardson Bay.

3. The discharger has contractual agreements to treat domestic wastewater from the City of Sausalito, Tamalpais Valley Community Services District, U.S. Army at Fort Baker, and Golden Gate National Recreational Area (hereinafter sewerage entities). Total population served is 16,000. The discharger treats wastewater from the discharger's collection system and those of the sewerage entities pursuant to the followng agreements:

   a. The discharger will continue to operate the treatment plant and is responsible for the treatment and disposal of waste from the plant.

   b. The discharger is responsible for control of waste discharged to sewers and received at the treatment plant.

   c. Each of the sewerage entities is responsible for waste discharged to its sewers and shares responsiblity with the discharger for control of waste received at the treatment plant.

4. The discharger presently discharges treated municipal wastewater into San Francisco Bay, a water of the United States, at 37° 50' 37" latitude and 133° 28' 3" longitude.

5. The discharger presently discharges an average dry weather flow of 1.5 million gallons per day (mgd) from its primary treatment plant which has a dry weather design capacity of 1.58 mgd.

6. The primary treatment plant will be rebuilt to provide secondary treatment for an average dry weather design flow of 1.8 mgd and a maximum wet weather design flow of 5.5 mgd. A new outfall will be built to discharge the treated waste water into San Francisco Bay at an initial dilution of at least 25.1. The outfall will be 300 feet from shore at a depth of 22 feet average mean low low water. It will have a 100 foot long diffuser with alternating double ports on 3 foot 4 inch spacings.

7. The discharge is presently governed by Waste Discharge Requirements, Order No. 79-122 adopted on October 16, 1979, which allows discharge into San Francisco Bay.

8. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for San Francisco and adjacent Richardson Bay.

9. The beneficial uses of Central San Francisco Bay and Richardson Bay are:

   - Water contact and non-contact recreation
   - Wildlife habitat
   - Preservation of rare and endangered species
   - Marine estuarine habitat
   - Fish migration and spawning
   - Industrial service and process supply
   - Shellfish harvesting
   - Navigation
   - Commercial and sport fishing

10. The Basin Plan prohibits the discharge of wastewater to waters with less than 10:1 initial dilution.

11. Novato Sanitary District, as lead agency for the Eastern Marin and Southern Sonoma Wastewater Agencies which include the discharger, requested an NPDES Permit time extension for construction of required facilities. This request was pursuant to Section 301(i)(1) of the Federal Water Pollution Control Acy (FWPCA), as amended. The Board finds the request warranted and grants the time extension for compliance with Section 301(b) pursuant to Section 301(1) of the Act.

12. Novato Sanitary District as lead agency for Eastern Marin and Southern Sonoma Wastewater Agencies certified a final Environmental Impact Report (EIR) on September 17, 1979, for their wastewater management projects in accordance with the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.). The members of this Regional Board have received and reviewed a summary of those documents.

13. The EIR did not specify any significant adverse impact on the environment unique to this project. Therefore, good construction practices and compliance with waste discharge requirements will avoid adverse impacts.

14. This Order serves as an NPDES permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

15. The discharger and interested agencies and persons have been notified of the Board's intent to reissue, revise, amend requirements for the existing discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.

16. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the discharger in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder shall comply with the following:

A. Discharge Prohibitions

1. The discharge of wastewater at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited (receiving water to wastewater flow).

2. The discharger and sewerage entities are prohibited from bypassing or overflowing untreated or partially treated wastewater to waters of the United States, either at the treatment plant or from any of the collection system and pump stations tributary to the treatment plant.

3. For the existing primary treatment plant the average dry weather flow shall not exceed 1.58 mgd. Average shall be determined over three consecutive months each year.

4. Following completion and performance certification of the proposed secondary treatment plant, the average dry weather flow shall not exceed 1.8 mgd. Average shall be determined over three consecutive dry weather months each year.

5. The Maximum wet weather flow through the secondary unit of the rebuilt plant shall not exceed 5.5 mgd.

B. Effluent Limitations

1. For the existing primary treatmeny plant and prior to achieving compliance with secondary treatment standards of this Order, the following interim effluent limitations shall apply to the discharge:

a. Settleable Matter

The arithmetic average of any 6 or more samples collected on any day	0.5 ml/l-hr. max.
80% of all individual samples collected during maximum daily flow over any 30-day period	0.4 ml/l-hr. max.
Any sample	1.0 ml/l-hr. max

b. The chorine residual of the discharge shall not exceed 0.0 mg/l.

c. The pH of the waste discharge shall not exceed 9.0 nor be less than 6.0.

d. The waste as discharged, or act at some place in the treatment process, shall meet the following limits of quality:

the total coliform bacteria for a median of five consecutive effluent samples shall not exceed 240 per 100 milliliters. Any single sample shall not exceed a most probable number (MPN) of 10,000 total coliform bacteria per 100 milliliters when verified by a repeat sample taken within 48 hours.

2. Following completion and performance certification of the proposed secondary treatment plant the discharge of effluent to the new outfall shall not exceed the following secondary treatment limits:

Constituents	Units	30-day Average	7-day Average	Maximum Daily	Instantaneous Maximum
a. Settleable Matter	ml/l-hr	0.1		-	0.2
b. BOD or	mg/l	30	45	60	-
Carbonaceous BOD(2)	mg/l	25	40	50	-
c. Total Suspended Solids	mg/l	30	45	60	-
d. Oil & Grease	mg/l	10		20	-
e. Total Chlorine Residual (1)	mg/l	-	-	-	0.0

(1) Requirement defined as below the limit of detection in standard test methods and is to be met at the Dechlorination Facility.

(2) Effective upon its promulgation in a new secondary treatment definition by EPA.

f. The arithmetic mean of the biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected approximately the same times during the same period (85 percent removal).

g. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.

h. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 50% survival based on the ten most recent consecutive samples.

i. Representative samples of the effluent shall not exceed the following limits: (1)

Constituent	Unit of Measurement	6 month median	Daily Maximum
Arsenic	mg/l	0.01	0.02
Cadmium	mg/l	0.02	0.03
Total Chromium	mg/l	0.005	0.01
Copper	mg/l	0.2	0.3
Lead	mg/l	0.1	0.2
Mercury	mg/l	0.001	0.002
Nickel	mg/l	0.1	0.2
Silver	mg/l	0.02	0.04
Zinc	mg/l	0.3	0.5
Cyanide	mg/l	0.1	0.2
Phenolic Compounds	mg/l	0.5	1.0
Total Identifiable Chlorinated Hydrocarbons (2)	mg/l	0.002	0.004

(1) These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

(2) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

j. The running median value for the MPN of total coliform in any five(5) consecutive effluent samples shall not exceed 240 coliform organisms per 100 milliliters. Any single sample shall not exceed 10,000 MPN/100 ml.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Bottom deposits or aquatic growths;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visibile, floating, suspended, or deposited oil or other products of petroleum origin;

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

f. Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 , mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved Sulfide	0.1 mg/l maximum
c.	pH	Variation from natural ambient pH by more than 0.5 pH units.
d.	Un-ionized ammonia	0.025 mg/l as N Annual Median 0.4 mg/l as N Maximum

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. The discharger shall comply with all sections of this Order immediately upon adoption except as stipulated in Provision 2 below.

2. The discharger shall comply with the following time schedule to achieve compliance with Discharge Prohibitions A.1, A.4, A.5; Effluent Limitations B.2a, B.2.b, B.2.c, B.2.d, B.2.f, B.2.h, B.2.i; Receiving Water Limitations C.1.a, C.1.c, C.2.c, C.2.d; and other secondary treatment standards of this Order.

Task	Completion Date	Compliance Report To Board
Award construction contract	—	Oct. 30, 1984
Submit final plan of operation	—	Aug. 1, 1985
Submit final Operation and Maintenance Manual	—	Aug. 1, 1985
Enact sewer use ordinance and user charge system	Sept. 1, 1985	Oct. 1, 1985
Complete Construction	April 1, 1986	May 1, 1986
Initiate facility operation	May 1, 1986	June 1, 1986
Complete project	May 1, 1986	June 1, 1986
Performance certification	May 1, 1987	June 1, 1987

The discharger shall submit to the Board, on or before each compliance report date, a report detailing his compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the discharger will be in compliance. The discharger shall notify the Board by letter when he has returned to compliance with the time schedule.

3. This Order supersedes the requirements prescribed in Order No. 79-122. Order No. 79-122 is hereby rescinded.

4. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

   Mass Emission Limit in lbs/day, kg/d = Concentration limit in mg/l x 8.34, 3.79 x Actual Flow in mgd averaged over the time interval to which the limit applies.

5. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and recommended operating strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.

6. The discharger shall review and update by January 1 in 1985 and annually its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a

contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

7. The discharger shall comply with the Self-Monitoring program as adopted by the Board and as may be amended by the Executive Officer.

8. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977, except A.12 and B.3. Item C.2 of the Standard Provisions shall read as follows: The "30-day, or 7-day, average" discharge is the total discharge by weight during 30, or 7, consecutive calendar day periods, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is requird by this permit, the 30-day, or 7-day, average discharge shall be determined by the summation of all the measured discharges by weight divided by the number of days during the 30, or 7, consecutive calendar day period when the measurements were made. For other than 7-day or 30-day periods, compliance shall be other than 7-day or 30-day periods, compliance shall be based on the average of all measurements made during the specified period.

9. In reviewing compliance with the limits of the Effluent Limitation B.2.f of this Order, the Board will take special note of the difficulties encountered in achieving compliance during periods of high wet weather flow.

10. This Order expires September 18, 1989. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

11. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on September 19, 1984.

ROGER B. JAMES
Executive Officer

Attachments:
Standard Provisions &
Reporting Requirements, April 1977
Self-Monitoring Program
Resolution 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

SAUSALITO-MARIN CITY SANITATION DISTRICT

MARIN COUNTY

NPDES NO. CA0038067

ORDER NO. 84-56

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

Station	Description
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceeding any phase of treatment.

B. EFFLUENT

Station	Description
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same location as E-001-D.)
E-001-D	At any point in the disinfection facilities for Waste E-001, at which point adequate contact with the disinfectant is assured.
E-001-S	At any point in the treatment facilities following dechlorination.

C. RECEIVING WATERS

Station	Description
C-1-U	At a point in San Francisco Bay located along the up current 100 feet from the center of the waste discharge boil.
C-2	At a point in San Francisco Bay located 100 feet southerly from the geometric center of the discharge diffuser.
C-3	At a point in San Francisco Bay located 100 feet easterly from the geometric center of the discharge diffuser.

C-4	At a point is San Francisco Bay located 100 feet northerly from the geometric center of the discharge diffuser.
C-5	At a point in San Francisco Bay located 1000 feet southerly from the point of discharge.
C-6	At a point in San Francisco Bay located 1000 feet northerly from the point of discharge.

D. LAND OBSERVATIONS

Station	Description
P-1 thru P-'n'	Located at the corners and midpoints of the perimeter fenceline surrounding the treatment facilities. (A sketch showinh the location of these stations will accompany the initial reports.)

E. OVERFLOWS AND BYPASSES

Station	Description
0-1 thru 0-'n'	Bypass or overflows from manholes, pump stations or collection system. Note: Bypass shall be reported to th is Regional Board by telephone immediately after occurance. A written report shall be filed with the Board within 5 working days which shall contain information such as quantity involved, location, course of bypass, nature of affects, and corrective measures taken.

II. SCHEDULE OF SAMPLING MEASUREMENTS AND ANALYSIS

The schedule of sampling, measurements and analysis shall be that given in Table 1.

III. MODIFICATIONS TO "PART A"

A. This Monitoring program does not include the following sections of Part A, dated January 1978: C.3, C.4.

I, Roger B. James, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 84-56.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

ROGER B. JAMES
Executive Officer

Effective Date_____

Attachments:
Table I
Form A

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001			E-001-D/ E-001/S			All C Sta.	All P Sta.	O Sta.			
TYPE OF SAMPLE	C-24	G	C-24	Cont	G	C-24	Cont	G	O	O			
Flow Rate (mgd)	D			D									
BOD, 5-day, 20°C, or COD (mg/l & kg/day)	W		W										
Chlorine Residual & Dosage (mg/l & kg/day)					2H	or	Cont						
Settleable Matter (ml/l-hr. & cu. ft./day)		(2) D											
Total Suspened Matter (mg/l & kg/day)	W		W										
Oil and Grease (mg/l & kg/day)		(4) M											
Coliform (Total or Fecal) (MPN/100 ml) per req't					3/W								
Fish Tox'y 96-hr. TL 50% Surv'l in undiluted waste						M							
Ammonia Nitrogen (mg/l & kg/day)			M										
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)								Q					
pH (units)		D						Q					
Dissolved Oxygen (mg/l and % Saturation)		D						Q					
Temperature (°C)		D						Q					
Apparent Color Visual								Q					
Secchi Disc (inches)								Q					
Sulfides (if DO<5.0 mg/l) Total & Dissolved (mg/l)		W						Q					
Arsenic (mg/l & kg/day)			2/Y										
Cadmium (mg/l & kg/day)			2/Y										
Chromium, Total (mg/l & kg/day)			2/Y										
Copper (mg/l & kg/day)			2/Y										
Cyanide (mg/l & kg/day)			2/Y										
Silver (mg/l & kg/day)			2/Y										
Lead (mg/l & kg/day)			2/Y										

TABLE I (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001			E-001-D/ E-001-S			All C. Sta.	All P Sta	O Sta.			
TYPE OF SAMPLE	C-24	G	C-24	Cont	G	C-24	Cont	G	O	O			
Mercury (mg/l & kg/day)			2/Y										
Nickel (mg/l & kg/day)			2/Y										
Zinc (mg/l & kg/day)			2/Y										
Phenolic Compounds (mg/l & kg/day)			2/Y										
All Applicable Standard Observations		D						Q	W	E			
Bottom Sediment Analyses and Observations													
Total Ident. Chlor. Hydro-carbons (mg/l & kg/day)			Y										
Un-ionized Ammonia as N (mg/l)								Q					

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-intergrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwaters stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

FOOTNOTES

(1) During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

1. Composite sample for BOD, Total suspended solids, oil and grease (Influent & Effluent)

2. Grab sample for Coliform (Total and Fecal), Settleable matter, and chlorine residual (continuous or every two hours)

3. Continuous monitoring of flow

(2) Every second week six samples shall be taken on one day, coincident with composite sampling.

(3) 5 samples to be taken at stations C-1-U thru C-6.

(4) Samples taken for oil and grease analysis shall be grab samples, at a frequency of monthly.

Oil and grease sampling shall consist of 3 grab samples taken at 8-hour intervals during the sampling day, with each grab being collected in a glass container and analyzed separately. Results shall be expressed as a weighted average of the 3 values, based upon the instantaneous flow rates occurring at the time of each grab sample.

If the plant is not staffed 24 hours per day or if the discharge does not occur continuously, then the three grab samples may be taken at approximately equal intervals during the period that the plant is staffed or during the period that discharge is made.

In the event that sampling for oil and grease once every two weeks or less frequently shows an apparent violation of the waste discharge permit 30-day average limitation (considering the results of one or two day's sampling as a 30-day average), then the sampling frequency shall be increased to weekly, so that a true 30-day average can be computed and compliance can be determined. This provision does not apply until compliance with oil and grease limitations has been achieved according to appropriate time schedule.